

1. FOOD SERVICE SUPERVISOR/MANAGER CERTIFICATION

B-322-2101

Topic 1.5 Food Preparation and Serving

Class periods: 1.5

Lab periods: 0

Enabling Objectives:

- 1.20 **DESCRIBE** the proper food preparation procedures for raw animal products, eggs, fruits and vegetables, and home cooked food
- 1.21 **STATE** the time and temperature requirements for advanced preparation foods, leftovers, and thawing
- 1.22 **DESCRIBE** the proper food serving requirements

Trainee Preparation Material:

Trainee Support Materials:

- 1. Student Workbook

Reference Publications: None

Instructor Preparation:

- A. Review Assigned Trainee Material
- B. Reference Publications:
 - 1. NAVMED P-5010, Chapter 1
- C. Training Materials Required:
 - 1. Power Point Presentation

LESSON PLAN

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DISCUSSION POINT

1. Introduction

RELATED INSTRUCTOR ACTIVITY

1. Establish contact.

Introduce yourself and give any background information that might be of interest.

Establish readiness.

Motivating statements.

Tell the trainees how they will use the course material.

Tell the trainees why they need to know the lesson material.

Refer to Student workbook and review objectives.

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RELATED INSTRUCTOR ACTIVITY

2. Minimum Food Protection Measures

- a. Apply good sanitation practices in the handling of food
- b. Maintain high standards of personal hygiene
- c. Keep potentially hazardous foods (PHF) refrigerated or heated to temperatures that minimize the growth of pathogenic microorganisms
- d. Inspect food products for wholesomeness, temperature and sanitary condition prior to acceptance
- e. Cook PHF appropriately to kill harmful microorganisms
- f. Provide adequate personnel, equipment, and facilities to ensure sanitary operation
- g. Prevent rodent and insect infestation or contamination, as well as contamination of food with toxic chemicals
- h. Use properly designed, cleaned, and sanitized equipment for its intended use

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3. Food Preparation

a. Cook raw animal products by conventional oven to specific internal temperatures

(1) Poultry, poultry stuffing, stuffed meats, stuffed fish, or stuffing containing fish, meat, or poultry

(a) Cooked immediately following preparation

(b) 165°F for 15 sec

(c) Poultry can be stuffed, however, it must reach an internal temperature of 165°F, stuffing must be removed immediately and stored at 140°F or higher until served

(2) Pork and game animals - 155°F for 15 seconds

(3) Ground beef - 155°F for 15 sec or until juices run clear

(4) Roast beef and corned beef - 145°F for 3 minutes

Ref: 3-5.2 pp 1-78

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b. Microwave cooking of raw animal products

- (1) Covered to retain surface moisture
- (2) Rotate or stir throughout cooking process to compensate for uneven distribution of heat
- (3) Heated to internal temp of 165°F
- (4) Allowed to stand for 2 minutes after cooking to obtain temperature equilibrium

c. Eggs

- (1) Raw eggs and food containing raw eggs are prohibited
- (2) Recipes calling for uncooked eggs will be prepared using only pasteurized frozen table eggs
- (3) Shell eggs made to order will be cooked to an internal temperature of 145°F for 15 seconds or until white is firm, not running, and the yolk is set
- (4) If scrambled eggs are made from fresh shell eggs, the following applies:

e.g. mayonnaise, eggnog, ice cream, Caesar salad dressing, hollandaise sauce

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- (a) Cook in small amounts (no more than 3 quarts) to internal temperature of 155°F for 15 seconds and until there is no visible liquid

Ref: 3-5.3 pp 1-78

- (b) Hold at 140°F or above

- (c) Don't combine freshly cooked eggs with eggs already on the steam table. A clean, sanitized container is required for every 3 quarts of scrambled eggs

d. Fruits and Vegetables

- (1) Raw fruits and vegetables must be thoroughly washed in water to remove soil and other contaminants before consumption

- (2) Vegetables unknown/uncertain origin

Examples: night soil, *E. coli*
Hepatitis A

- (a) Suspected of being contaminated with pathogenic organisms

- (b) Must be chemically disinfected

1 15 minutes in solution of 100 ppm
Free Available Chlorine (FAC)

2 30 minutes in 50 ppm FAC

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3 Rinse with potable water before
cooking or serving

(c) Cruciferous vegetables such as
lettuce, cabbage, celery, etc., must
be broken apart before disinfection

e. Home cooked food

(1) Not authorized in a food establishment.
This requirement does not apply to:

(a) Chapel suppers

(b) Family child care homes

(c) Neighborhood cookouts

(d) Unit bake sales

(2) Home canned food is prohibited at all
command function

4. Safe Holding Temperatures for Cooked Food

a. General guidelines

(1) Food which is not served immediately after
cooking must be held at 140°F or above or
rapidly cooled to 41°F or below

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- (2) PHF held out of this range for longer than 4 hours must be discarded
- (3) PHF ingredients which are to be consumed without further cooking such as salads, sandwiches, filled pastry products, and reconstituted foods must be chilled to 41°F or lower prior to preparation

b. Advanced Preparation Food

- (1) Advance preparation is food prepared for future service beyond a specific meal
- (2) HACCP principals should be followed, and if required by the PMA, a HACCP plan must be written
- (3) If advance preparation foods include PHF they may not be retained as a leftover
- (4) Must not be placed in "Hot Holding"
- (5) Must be cooled to 41°F within the following time constraints:
 - (a) From required cooking temp to 70°F within 2 hours; and

Example: Preparing a casserole for a weekend meal that will only need to be heated in an oven prior to serving.

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- (b) From 70°F to 41°F within a total of 4 hours from preparation .
- (c) Temperature logs are necessary for documentation of proper HACCP technique
- (6) Rapid cooling will be accomplished by one of the following:
 - (a) Ice bath and agitation
 - (b) Portioning into 3" product depth or less in shallow pans
 - (c) Using pre-chilled pans for portioning product
 - (d) Circulating cold water in steam jacket or kettles
 - (e) Rapid chill reefer to reduce temperature prior to placement into a standard reefer
 - (f) Immerse cooking dish in cold running water with product agitation
 - (g) Spreading sliced items in shallow pans and then refrigerating

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- (h) Distributing product among several reefers
- (i) Using metal stainless steel or aluminum containers
- (j) Reducing content of water and adding ice after cooking
- (k) Utilizing ice-type paddles
- (7) Protect from contamination by following methods:
 - (a) Hot foods may be loosely covered or uncovered if protected from overhead contamination during cooling period to facilitate heat transfer
 - (b) Tightly cover food after it reaches 41°F
 - (c) PHF that will be transported must be pre-chilled and held at 41°F or below
- (8) Labeling with "Advance Preparation Food", date and time of preparation and required discard date and time

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- (9) May be held at 41°F or below for 72 hours from original time of preparation
- (10) Reheating of advance preparation food items consisting of PHF:
 - (a) Will not take longer than 2 hours for all parts to reach a minimum of 165°F for 15 seconds
 - 1 Exceptions include whole or unsliced beef roasts (cooked to 140°F), or
 - 2 Food taken from commercially processed hermetically sealed containers
 - (b) Held at 140°F for no longer than 5 hours
 - (c) PHF items that are prepared in advance but not reheated for service, must be held at 41°F or below or served within 2 hours of removal from refrigeration

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- (d) A waiver for freezing of limited menu items, that are advance preparation foods (egg rolls) may be authorized by the PMA under certain conditions but may require a HACCP plan

c. Leftovers

- (1) Any unserved food remaining at the end of the meal period is considered a leftover
- (2) Food that has been on the serving line is not a leftover and must be discarded
- (3) Non-potentially hazardous food, i.e. individual, commercially-packaged crackers and condiments, may be recovered from the serving line but not individual trays
- (4) Potentially hazardous leftovers
 - (a) Food with commercially prepared chopped or ground meat ingredients may be saved as a leftover
 - (b) PHF leftovers must have been held at safe temperatures of "hot holding" at 140°F or above, or cold holding at 41°F or below

This includes things such as ham for omelets, tuna salad, potato salad, etc.

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- (c) Must not have been placed on the serving line
- (d) Hot items to be retained chilled must be chilled in the following manner:
 - 1 Chilled from 140°F to 70°F within 2 hours; and
 - 2 From 70° to 41° within the total 4 hour time frame
 - 3 Any food not meeting time or temperature requirements will be discarded
- (e) PHF leftovers must be labeled "LEFTOVER - USE WITHIN 24 HOURS" with the date and time of both preparation and discard on the label
- (f) PHF which have been cooked, chilled, and reheated for service shall not be saved as leftovers
- (g) Leftover foods may be retained for 24 hours chilled (41°F or below) or for 5 hours heated (140°F). The time limit begins when food is removed from hot holding, and total duration allowed in temperature danger zone is 4 hours

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- (h) Freezing of leftovers is prohibited
- (i) Reheating is same as advance prep
- (j) Prohibited leftovers
 - 1 Foods composed of ingredients which have been peeled, sliced or diced by hand must never be saved as a leftover
 - 2 Nonpackaged or unwrapped recovered from the self-serving line may not be saved as leftovers
- (5) Commercial meat, cheeses and salads
 - (a) All meats and cheeses must be consumed within 7 calendar days of opening, if maintained at 41°F or lower
 - (b) Inspect visually upon each use and discard if deterioration is noted
 - (c) Use all salads, including the contents of a master container, within 72 hours of opening
 - (d) Label each package with date/time of opening and discard date/time

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d. Thawing procedures

- (1) Ideally, food should be thawed under refrigeration at a temperature of 36°-38°F in original containers or wrappers
- (2) Do not thaw by exposure to excessive heat or warm air currents
- (3) Frozen food may be thawed in a microwave oven as part of continuous cooking process
- (4) At shore facilities food may be thawed under running water
 - (a) Water temp must be 70°F or below
 - (b) Must have sufficient water velocity to float off loose particles in an overflow
 - (c) For a period of time that does not allow thawed portions of ready-to-eat food to rise above 41°F (5°C)

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- (d) For a period of time that does not allow thawed portions of a raw animal food requiring cooking to be above 40°F (5°C) for more than 4 hours total for thawing, preparation, cooking and cooling for storage
- (5) On board ships during emergency situations when equipment such as microwave ovens and refrigeration are inoperable, food may be thawed at room temperature, under certain conditions:
 - (a) All other options must be exhausted
 - (b) Frozen food is thawed in the galley or meat prep space
 - (c) Room temperature does not exceed 80°F
 - (d) Meat, poultry, and fish must remain in original container
 - (e) Take precautions to ensure PHF does not remain at room temp once thawed, cook immediately
 - (f) PMA must be notified

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5. Food Serving

a. Serving lines

- (1) Must be equipped with a functional sneeze shield
- (2) Food on the serving line must be maintained at a temperature above 141°F or below 41°F
- (3) Temperatures of food on the line should be checked frequently

b. Salad bars

- (1) May be self service
- (2) Must have a functional sneeze shield
- (3) All items must be prechilled to 41°F or below
 - (a) Placed in pans on a bed of ice
 - (b) Placed on an electrically refrigerated salad bar unit
- (4) PHF on the salad bar
 - (a) Place in small quantities

Sprouts are considered a PHF.

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- (b) Replenish in clean containers, do not add new material to existing containers
- (c) PHF must be discarded at the end of the meal period
- (5) Vegetable items may be kept until the end of the day as long as a visual inspection is made during the day to ensure wholesomeness
- (6) Salad dressings
 - (a) Non-commercially prepared salad dressing placed in bowls must be discarded at the end of the meal period
 - (b) Commercially prepared salad dressing packaged in small bottles are exempt from discarding as long as they are refrigerated between meals
 - (c) Some commercial brands of mayonnaise and salad dressing are exempt from refrigeration during meal periods.
 - 1 Must be placed in containers with NSF approved dispensing pump

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2 Must be refrigerated between meal periods

3 Must discard after 48 hours

4 Pump must be cleaned and sanitized immediately prior to being placed on container

(d) Single serve mayonnaise and salad dressing do not need refrigeration

(7) Utensils

(a) Adequate amount

(b) Utensils must be stored in food with handles extended or in running water

c. Self Service Items

(1) Authorized for self service

(a) Bread, butter, crackers, relishes, condiments, and beverages

(b) Certain types of deserts are self serve

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- (2) Deserts which may be self serve:
 - (a) Desserts portioned in individual dishes
 - (b) Individually wrapped portions of ice cream
 - (c) Cookies
 - (d) Fruit (fresh, canned, stewed, and frozen)
 - (e) Soft ice cream from dispensing machines
- d. Family Style Service (for small wardrooms, US Naval Academy, etc.)
 - (1) Must be authorized by the PMA
 - (2) Strict compliance with 4 hour rule
 - (a) Foods should be placed for service in small quantities immediately prior to a meal
 - (b) Adequate utensils supplied
 - (c) Serving bowls will not be refilled

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- (d) Salad items pre-chilled to 41°F or lower and placed on ice
- (e) PHF discarded after meal
- (f) Bulk ice cream may not be served family style

6. Summary

- a. Minimum Food Protection Measures
- b. Food Preparation
 - (1) Cooking raw animal products
 - (2) Eggs
 - (3) Fruits and vegetables
 - (4) Home cooked foods
- c. Safe holding temperatures
 - (1) General guidelines
 - (2) Advanced preparation foods
 - (3) Leftovers

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(4) Thawing procedures

d. Food Serving

(1) Serving lines

(2) Salad bars

(3) Self service items

(4) Family style service